Under the Paperwork Reduction A a of 1995, no persons

PTO/SB/08A (07-05)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE equired to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

Sheet 1

MAY 2 2 7006

INFORMATION DESCLOSE STATEMENT BY APPEREANT

01 4

(Use as many sheets as necessary)

Col	mplete if Known	
Application Number	10/634,455	
Filing Date	August 4, 2003	
First Named Inventor	David J. Carpenter	
Art Unit	2837	
Examiner Name	J. Donels	
Attorney Docket Number	101/06	

			U. S. PATENT	DOCUMENTS	
Examiner Initials*	Cite No.1	Document Number Number-Kind Code ^{2 (f known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
JD	-		2/1960	Peterson	
	1	^{US-} 2,924,776			
JD	2	^{US-} 2,958,250	11/1960	Poehler	
Э	3	^{US-} 3,509,454	4/1970	Gossel	
JD	4	^{US-} 3,631,756	1/1972	Mackworth-Young	
JD	5	^{US-} 3,696,293	10/1972	Hoffman et al.	
JD	6	^{US-} 3,722,353	3/1973	Westhaver	
JD	7	^{US-} 3,766,818	10/1973	Prohofsky	
JD	8	^{US-} 3,901,120	8/1975	Youngquist	
JD	9	^{US-} 3,968,719	7/1976	Sanderson	
JD	10	^{US-} 3,982,184	9/1976	Sanderson	
JD	11	^{US-} 4,014,242	3/1977	Sanderson	
JD	12	^{US-} 4,018,124	4/1977	Rosado	
JD	13	^{US-} 4,142,434	3/1979	Gross	
JD	14	US- 4,242,935	1/1981	Peterson et al.	
ம	15	US- 4,429,609	2/1984	Warrender	
JD	16	US- 4,732,071	3/1988	Deutsch	•
JD	17	^{US-} 4,796,509	1/1989	Mizuguchi et al.	
ஶ	18	^{US-} 4,991,484	2/1991	Kawashima	
JD	19	^{US-} 5,016,515	5/1991	Scott	

		FOREIG	N PATENT DOCU	MENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
		Country Code ³ "Number ⁴ "Kind Code ⁵ (# known)	MM-DD-YYYY		Or Relevant Figures Appear	
	ļ					
						╂┤
			 			H
	<u> </u>					

Date Examiner /Jeffrey Donels/ Considered 10/25/2006

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 'Applicant's unique citation designation number (optional). 'See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 'Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 'For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 'Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 'Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandra, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. Approved for use through 07/31/2006. OMB 0651-0031 U.S. Patent and Tredemark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Complete if Known Substitute for form 1449/PTO Application Number 10/634,455 Filing Date August 4, 2003 INFORMATION DISCLOSURE First Named Inventor David J. Carpenter STATEMENT BY APPLICANT Art Unit 2837 (Use as many sheets as necessary) J. Donels **Examiner Name** 101/06 Attorney Docket Number

of 4

	-		U. S. PATEN	T DOCUMENTS	
Examiner Initials*	Cite No.1	Document Number Number-Kind Code ² (# known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
JD	20	US- 5,056,398	10/1991	Adamson	
JD	21	^{US-} 5,111,392	5/1992	Malin	
JD	22	US- 5,202,528	4/1993	Iwaooji	
JD	23	^{US-} 5,285,711	2/1994	Sanderson	
JD	24	^{US-} 5,349,130	9/1994	Iwaooji	-
JD	25	^{US-} 5,388,496	2/1995	Miller et al	
JD	26	^{US-} 5,396,827	3/1995	Miller et al	
JD	27	US- 5,440,756	8/1995	Larson	
JD	28	^{US-} 5,549,028	8/1996	Steinberger	
JD	29	^{US-} 5,719,343	2/1998	Reyburn	
JD	30	^{US-} 5,773,737	6/1998	Reybum	
JD	31	^{US-} 5,777,248	7/1998	Campbell	
JD	32	^{US-} 5,780,759	7/1998	Szalay	
ĴĎ	33	^{US-} 5,814,748	9/1998	Reybum	
JD	34	us- 5,902,946	5/1999	Kogure et al.	
JD	35	^{US-} 5,929,358	7/1999	Reybum	
JD	36	^{US-} 6,066,790	5/2000	Freeland et al	
JD	37	^{US-} 6,137,046	10/2000	Kamiya	
JD	38	^{US-} 6,529,843	3/2003	Carpenter	

		FORE	IGN PATENT DOCU	MENTS		
Examiner Initials*	Cite No.	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
		Country Code ³ "Number ⁴ "Kind Code ⁵ (if known)	MM-DD-YYYY		Or Relevant Figures Appear	T ⁶
						匚
						\Box

Examiner Signature	/Jeffrey Donels/	Date Considered 10	/25/2006

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.18 if possible. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Complete if Known Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 3

of 4

Application Number	10/634,455		
Filing Date	August 4, 2003		
First Named Inventor	David J. Carpenter		
Art Unit	2837		
Examiner Name	J. Donels		
Attorney Docket Number	101/06		

			U. S. PATEN	T DOCUMENTS	
Examiner Initials*	Cite No.	Document Number Number-Kind Code ² (f known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
JD		US- C C4C C74	0/0000		1000000
	39	^{US-} 6,613,971	9/2003	Carpenter	
JD	40	^{US-} 6,627,806	9/2003	Carpenter	
	<u>.</u>	US-			
		US-			
	<u> </u>	US-			
-		US-		·	
	1	US-			
		US-			
	i	UŞ-	+		
		US- ,,	<u> </u>		
		US-	 		

		FOREI	GN PATENT DOCU	MENTS		\neg
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)	MM-DD-YYYY		Or Relevant Figures Appear	T [®]
						H
						$\vdash\vdash$
						Ħ

Examiner Signature	/Jeffrey Donels/	Date Considered	10/25/2006

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 801.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08B (07-05)
Approved for use through 07/31/2008. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
d to a collection of information unless it contains a valid OMB control number.

					Complete If Known
Substitu	Substitute for form 1449/PTO			Application Number	10/634,455
INF	ORMATION	DIS	CLOSURE	Filing Date	August 4, 2003
STA	TEMENT E	BY A	PPLICANT	First Named Inventor	David J. Carpenter
				Art Unit	2837
	(Use as many she	ets es n	ecessary)	Examiner Name	J. Donels
Sheet	4	of	4	Attorney Docket Number	101/06

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
G	41	LATTARD, Influence of inharmonicity on the tuning of a piano-Measurements and mathematical simulation, J. ACOUST. SOC. AM. 94 (1), pp. 46-53, July 1993	
JD	42	FLETCHER, Normal Vibration Frequencies of a Stiff Piano String, J. ACOUST. SOC. AM. 36 (1), pp. 203-209, January 1964	
JD	43	YOUNG, Inharmonicity of Plain Wire Piano Strings, J. ACOUST. SOC. AM. 24 (3), pp. 267-273, May 1952.	
Ъ	44	ROBERTS, The Calculating Technician (1990), pp. 29-46.	
ΊD	45	BALDASSIN, On Pitch (1994), pp. 1-112 (entire book).	

Examiner	/Jeffrey Donels/	Date	10/05/0006
Signature	• •	Considered	10/25/2006

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

considered. Include copy of this form with next communication to applicants.

Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.